Data Collection, Needs Assessment, and Evaluation for Prescription Drug Abuse Prevention

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Painting with a Broad Brush

- Available sources of data
  - What they ask
  - How we might draw regional inferences
- Localizing data collection efforts
- Data collection with limited funds

NMPDU Data Sources

- Drug Abuse Warning Network (DAWN)
- Monitoring the Future (MTF)
- National College Health Assessment (ACHA-NCHA)
- National Surveys on Drug Use and Health (NSDUH)
- Center for Substance Abuse Research (CESAR)

DAWN

- Public health surveillance system that monitors drug-related hospital emergency department (ED) visits and drug-related deaths to track the impact of drug use, misuse, and abuse in the U.S.
- Do your local hospitals collect this data?

MTF

- Repeated series of surveys in which the same segments of the population (8^{th}, 10^{th}, 12^{th} graders; college students; young adults) are presented with the same set of questions over time.
- Measures the behaviors, attitudes, and values associated with substance use
- Uses specific prescription drugs as response options

MTF

- It asks:
  - On how many occasions, if any, have you used (insert substance)…in your lifetime…during the last 12 months…during the last 30 days?
  - For psychotherapeutic drugs, respondents are instructed to report use “on your own – that is without a doctor telling you to take them.”
  - How much do you think people risk harming themselves (physically or in other ways), if they try (insert substance) once or twice, for example?

MTF

- It asks (continued):
  - Do YOU disapprove of people doing each of the following (insert substance): if they try (insert substance) once or twice, for example?
  - How difficult do you think it would be to get each of the following drugs, if you wanted some?
  - Where did you get (insert substance) you used without a doctor's orders the past year?

ACHA-NCHA

- Added NMPDU question in Fall 2008
- Administered every semester by the American College Health Association to hundreds of campuses and universities
- Uses prescription drug categories as response options
- It asks:
  - In the last 12 months, have you taken any of the following prescription drugs that were not prescribed to you?

NSDUH

- Provides yearly national and state-level data on the use alcohol, tobacco, illicit and non-medical prescription drug use in the United States
- It asks:
  - About lifetime, past year and past month non-medical tranquilizer, sedative, stimulant and pain reliever use
  - About lifetime use of all specific prescription medications

CESAR

- NIH-funded project at the University of Maryland
- Longitudinal prospective study following a large sample of college students (n=1,253) throughout their college career and beyond
- Features data from annual interviews and web-based surveys
- Students with past histories of drug use (illicit and non-medical use) oversampled

CESAR

- It has reported on:
  - Ease of access
  - Perceived harmfulness
  - High-risk alcohol, illicit drug use and NMPDU
  - Impact of NMPDU on GPA
  - Medical use versus medical overuse versus NMPDU

Do You Know What is Happening on Your Campus?

- How many first year students are coming to campus with prescribed medication(s)?
- How frequently are your students being solicited for their medication(s)?
- How frequently are your students sharing their medication(s)?
- How do your students perceive non-medical prescription drug use on your campus?
- How accurate are their perceptions?
- How frequently are students non-medically using prescription medications?

Do You Know What is Happening on Your Campus?

- How difficult is it for your student(s) to obtain a prescription medication without a prescription on your campus?
- How many of your students perceive non-medical prescription drug use as harmful? Illegal with clear consequences?
- How many alcohol and other drug-related incidents on and off-campus involve prescription drug use?
- How are they taking the prescription drug (e.g., oral, intranasal, co-ingestion with other drugs)?

Data Collection on a String

- Environmental scan
- Research office surveys
- Online survey tools
- Cell phone texting surveys
- Audience Response System/Clicker technology
- Regional partnerships for common survey administration
- Custom questions in online educational tools
- Paper and pencil guerilla surveying strategies
- Academic research projects
- BASICS survey tools

Villanova University

Toolkit includes:

- Executive Summary of the data
- Data Sources & Tools
- Primary, Secondary & Tertiary Strategies
- Supplemental Handouts on:
  - -Commonly used medicines, misuse & interactions
  - -Time, stress, & study strategies
  - -Refusal strategies for students prescribed medication(s)
  - -Questions to ask a healthcare provider
  - -Smart disposal strategies

Survey Research

Lance C. Kennedy- Phillips, PhD

Executive Director, Center for the Study of Student Life

The Ohio State University

Roadmap

- Overview of Quantitative Methods
- Using survey research to understand the misuse and abuse of prescription drugs on college campuses
- The Ohio State University Misuse and Abuse of Prescription Drug Survey

Quantitative Methods

- True Experimental Design
- Quasi-Experimental Design
- Pre-Experimental (Non-Experimental) Design

True Experimental Designs

- Pre-Test-Post-Test Control-Group Design
  - Group A R-------O--------X-------O
  - Group B R-------O----------------O

- Post-Test-Only Control-Group Design
  - Group A R---------------X---------O
  - Group B R--------------------------O

Quasi-Experimental Design

- Nonequivalent (Pre-Test and Post-Test) Control group design
  - Group A O---------X---------O
  - Group B O--------------------O

- Single-Group Interrupted Time-Series Design
  - Group A O----O-----O-----X----O----O----O

Pre-Experimental Design

- One Shot Case Study
  - Group A X----------O
- One Group Pre-test-post-test design
  - Group A O1----------X----------O2
- Static Group Comparison
  - Group A X----------O
  - Group B----------O

Survey Research

Types of surveys

- By scope: Census versus Sample Survey
- By time frame: Longitudinal versus Cross-sectional
- By mode of data collection: Face to face, Mail, Telephone, Web, Directly administered

Advantages of survey research

- Can collect information not available from other sources
- Can address a wide range of topics
- Can achieve unbiased representation of population through appropriate sampling techniques
- Less intrusive when examining sensitive topics

Disadvantages of survey research

- Unable to probe questions
- lack of personal contact

Steps and guiding questions

- Planning: Research question and current literature
- Sampling and population
- Developing the instrument (survey)
- Implementing the survey
- Analyzing data
- Reporting and using survey

Planning

- Trends
  - Prescription and non-prescription medications have become the drugs of choice for abuse among our nation's youth
  - Perceptions of safety and the lack of addictive potential
  - The culture of "pharmaceutical populism" on college campuses
- Research Question:
  - What are students' perceptions of the misuse of prescription drugs?

Sampling

- 5000 Random Sample
- 20% Response rate

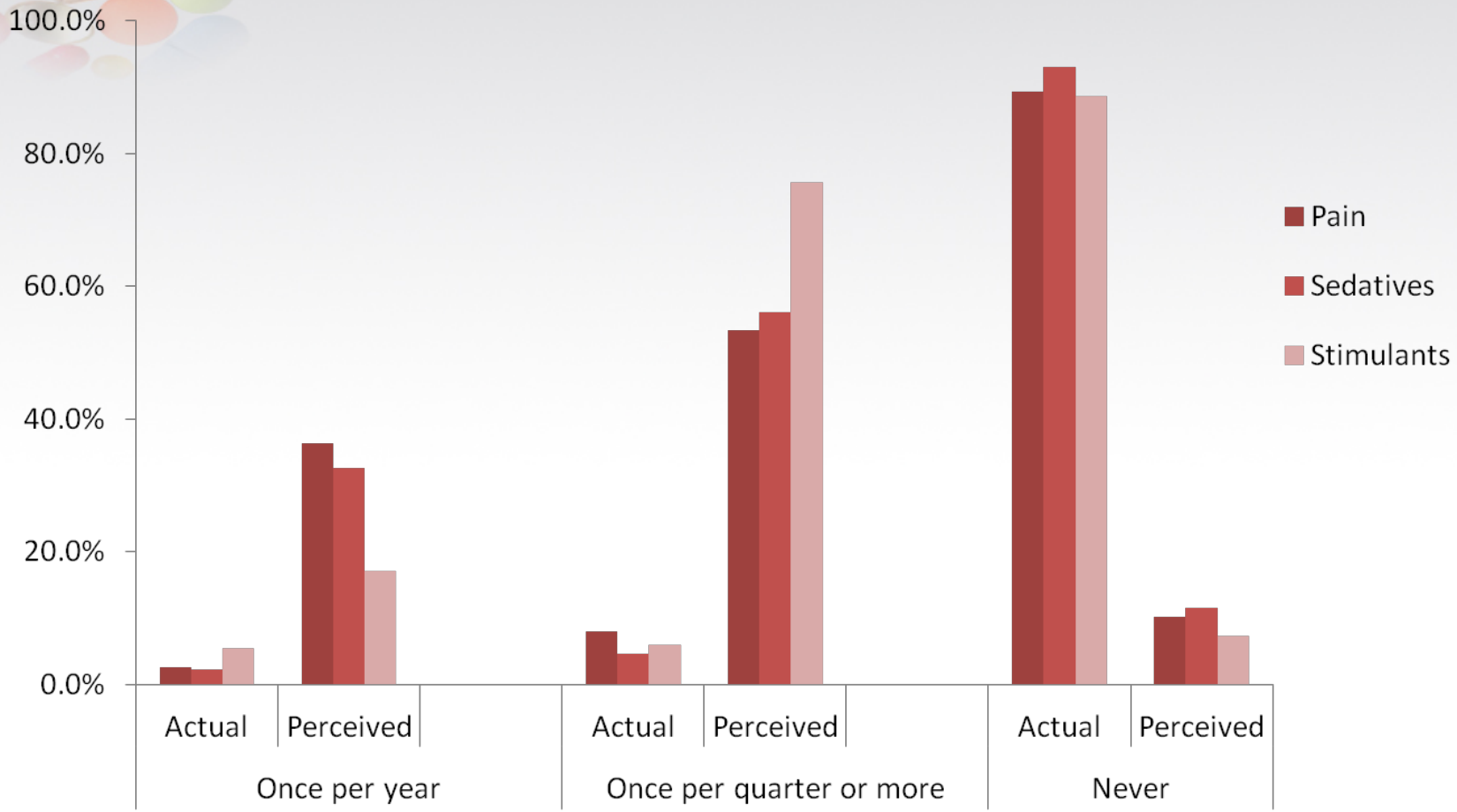
Gender	%
Male	38.6%
Female	60.6%

Class Rank	%
First year	18.7%
Second year	16.2%
Third year	16.7%
Fourth year	17.4%
Fifth year undergraduate or more	6.9%
Graduate (masters)	10.2%
Graduate (doctoral)	8.8%
Professional	3.7%
Other	1.3%

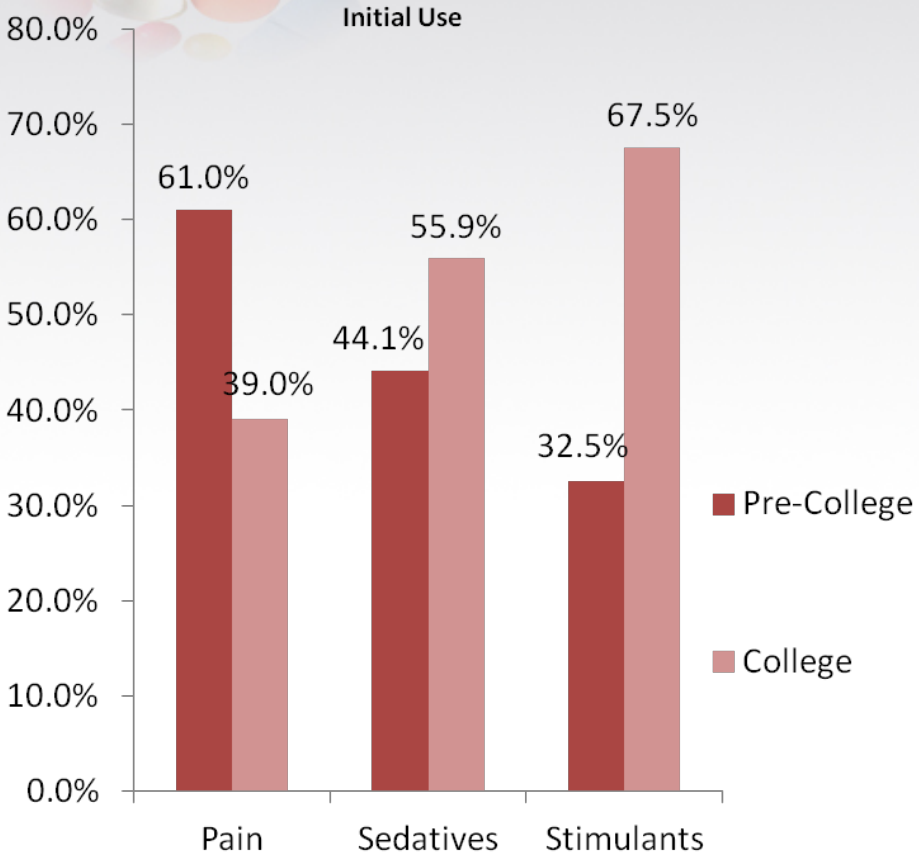
Developing the instrument

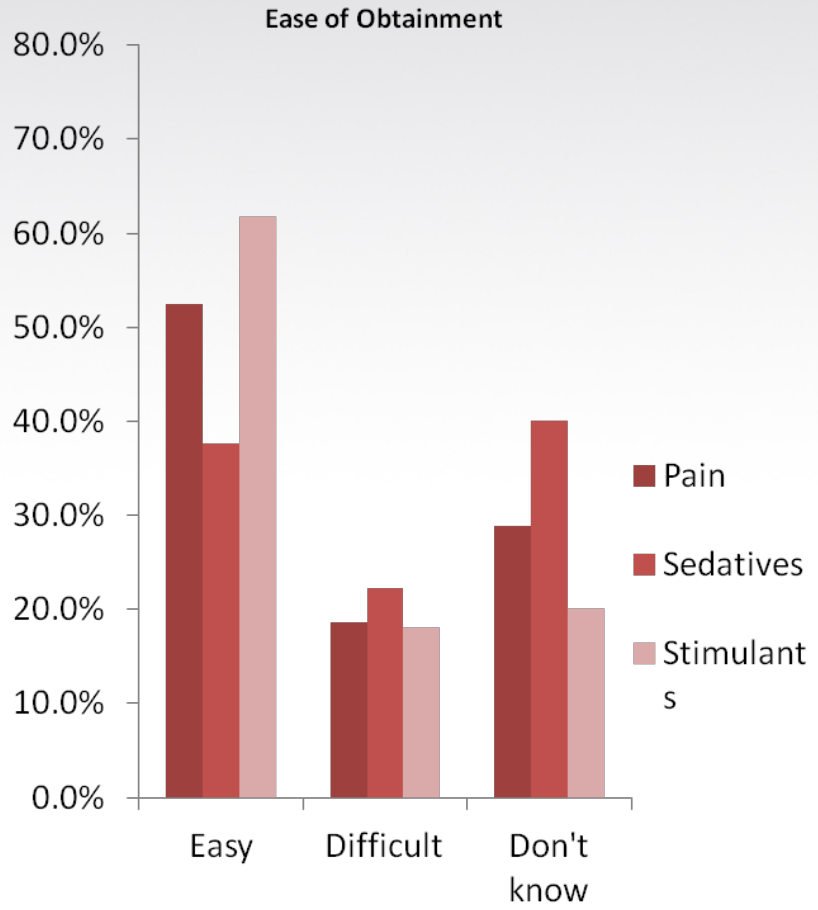
- Our Focus
  - Pain
  - Sedatives
  - Stimulants
- What did we want to know?
  - Frequency of use
  - Reasons for use
  - Consequences of use

Analyzing the results: Perceived vs. Actual Use

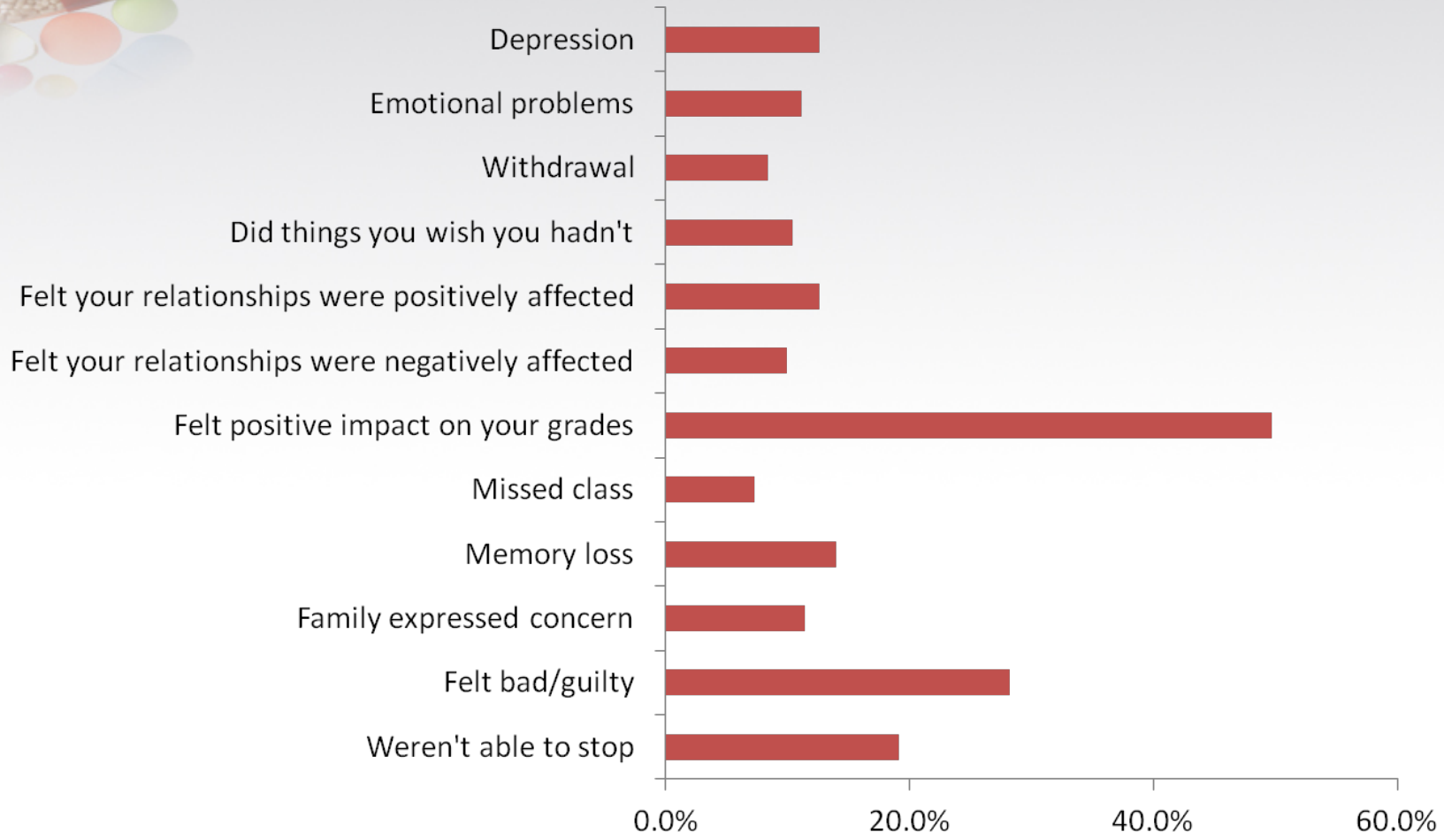


Analyzing the results: Initial Use & Obtainment





Analyzing the results: Effects of Use



Reporting the results

- **11.4%** of students reported having used prescription stimulants for non-medical purposes
- Student perceptions of non-medical prescription drug use were much **higher** than actual use
- **67.5%** of students who used prescription stimulants non-medically first used them in college

Using the results

- Perceived v. Actual Use
  - Opportunity for social norms marketing
- Continued dissemination of information
  - College of Pharmacy
  - Departments in Student Affairs
  - Student Leaders
- Data-informed program development
  - Residential Life
  - Wellness center
  - University Counseling

- RA training
- Wellness Coaches
- Support Groups

Questions?

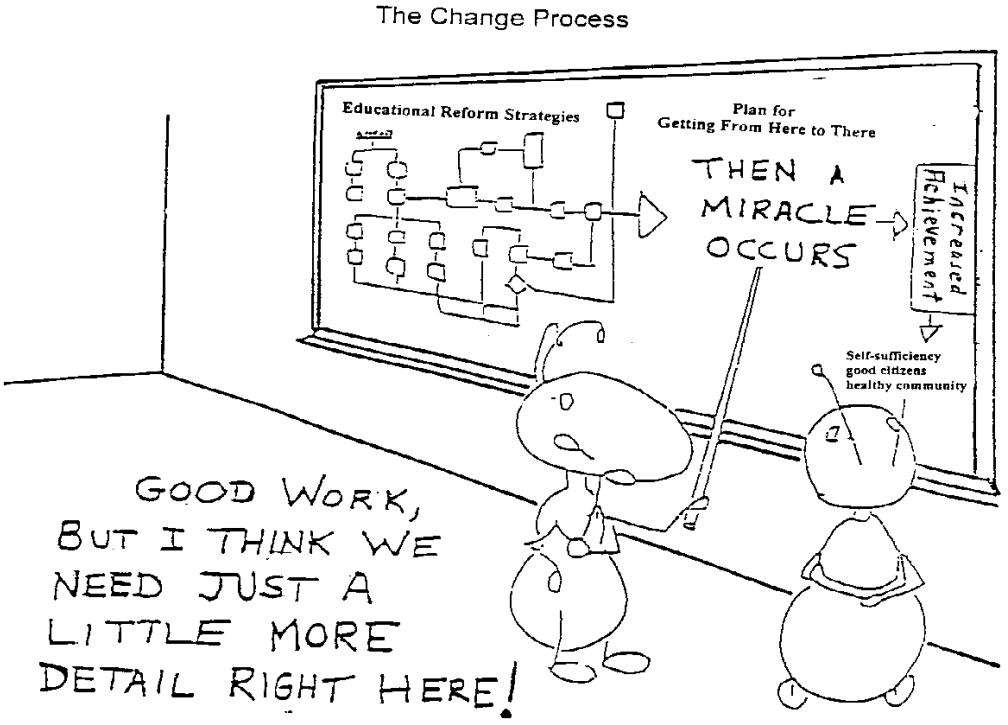
- Center for the Study of Student Life
  - cssl.osu.edu
- Lance Kennedy-Phillips, Executive Director
  - Kennedy-phillips.1@osu.edu
- Christina Athas, Research Analyst
  - Athas.1@osu.edu

Preventing Prescription Drug Abuse : Does your Program Work and How Do You Know?

Dawn Anderson-Butcher, PhD, LISW-S

Presented at THE USDOE Higher education training center's Preventing the Nonmedical Use of Prescription Drugs Among College Students training institute

The Change Process



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Importance of Program Evaluation…

- …for your Organization
  - Document success and outcomes
  - Program design and improvement
  - Promotes clarification of program objectives
  - Market your programs/services
- …for the Funder
  - Helps determine whether funds were appropriately spent
  - Public relations and advertising
  - Helps in the creation of future funding priorities/objectives

(Coley & Scheinberg, 2008)

Process Evaluation

- Answers : *How* did you achieve the result?

- Gathers feedback on strengths and weaknesses of program design to use for improvement planning
  - Number of participants and of what demographics
  - Number of fliers distributed and to whom
  - Description of the process of how the program was implemented or not
  - Description of whether all activities were completed and if they were implemented with fidelity

Outcome Evaluation

- Answers the question: *Did* you achieve the result?
- To what extent did you meet your objectives and goals?
- Key questions:
  - Increase awareness of the prescription drug abuse issue
  - Increase knowledge of…
    - how to reduce access to prescription drugs
    - how to properly dispose prescription drugs
    - what the consequences/dangers of misusing or abusing prescription drugs
  - Increase willingness to openly discuss the issue of prescription drug abuse ("spread the word")
  - Decrease prescription drug abuse

OHIO STATE

LiFE*sports*

LEARNING IN FITNESS AND EDUCATION

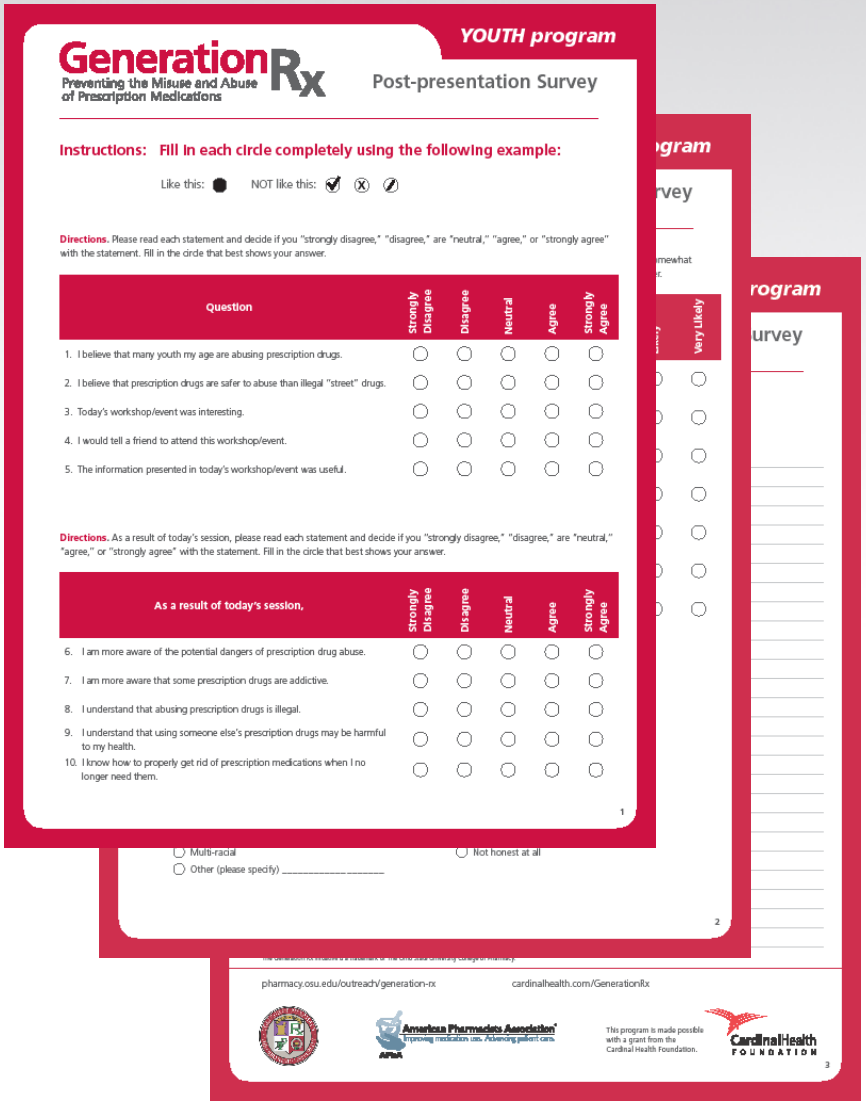
Process Indicators

- 620 youth participated in 4 week sports-based summer camp
- Trained in 30 minute version of Generation Rx
  - 600 youth
  - 300 parents
  - 60 youth workers
- Sent 5 youth to a national conference on youth leadership
- Distributed LiFE Sports newsletter with information on prescription drug abuse to 650 families
- Observed implementation of curriculum

Generate Rx Youth Program Evaluation Survey

- 56% of youth surveyed reported they are more aware of the dangers of prescription drug abuse

- 80% of adults completing the survey reported they will not use prescription drugs no prescribed for them



YOUTH program

GenerationRx
Preventing the Misuse and Abuse of Prescription Medications

Post-presentation Survey

Instructions: Fill in each circle completely using the following example:

Like this: ● NOT like this: ✓ ⊗ ⊘

Directions. Please read each statement and decide if you "strongly disagree," "disagree," are "neutral," "agree," or "strongly agree" with the statement. Fill in the circle that best shows your answer.

Question	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I believe that many youth my age are abusing prescription drugs.	○	○	○	○	○
2. I believe that prescription drugs are safer to abuse than illegal "street" drugs.	○	○	○	○	○
3. Today's workshop/event was interesting.	○	○	○	○	○
4. I would tell a friend to attend this workshop/event.	○	○	○	○	○
5. The information presented in today's workshop/event was useful.	○	○	○	○	○

Directions. As a result of today's session, please read each statement and decide if you "strongly disagree," "disagree," are "neutral," "agree," or "strongly agree" with the statement. Fill in the circle that best shows your answer.

As a result of today's session,	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
6. I am more aware of the potential dangers of prescription drug abuse.	○	○	○	○	○
7. I am more aware that some prescription drugs are addictive.	○	○	○	○	○
8. I understand that abusing prescription drugs is illegal.	○	○	○	○	○
9. I understand that using someone else's prescription drugs may be harmful to my health.	○	○	○	○	○
10. I know how to properly get rid of prescription medications when I no longer need them.	○	○	○	○	○

1

Multi-racial
Other (please specify) _____

Not honest at all

2

pharmacy.osu.edu/outreach/generation-rx cardinalhealth.com/GenerationRx

America's Pharmacists Association

This program is made possible with a grant from the Cardinal Health Foundation.

CardinalHealth FOUNDATION

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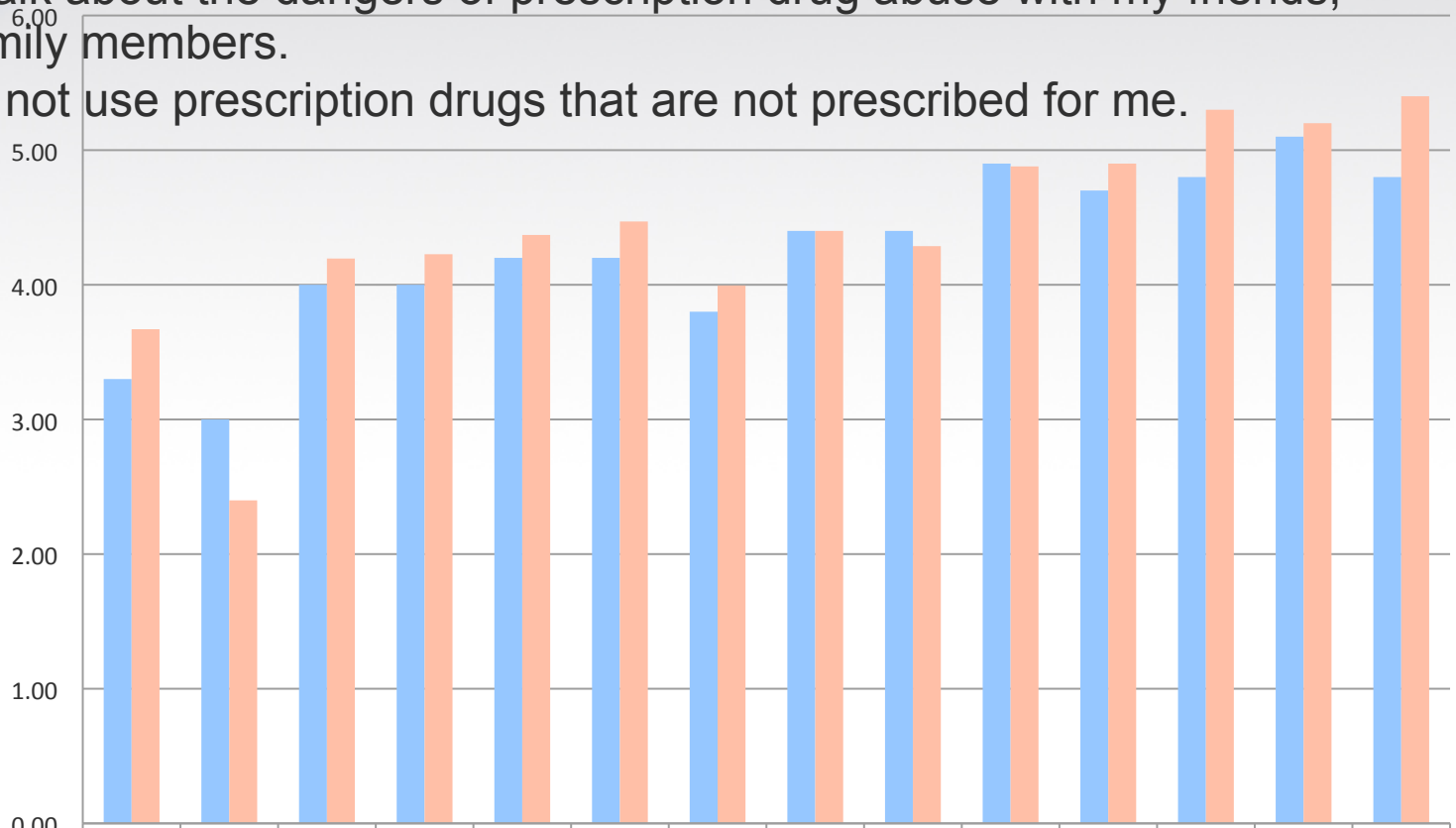
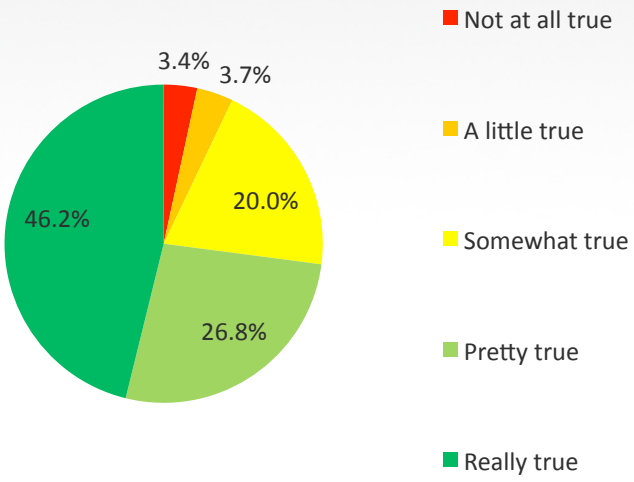
Item 3: I am more aware of the potential dangers of prescription drug abuse.
Item 8: I will talk about the dangers of prescription drug abuse with my friends, peers, and family members.
Item 13: I will not use prescription drugs that are not prescribed for me.

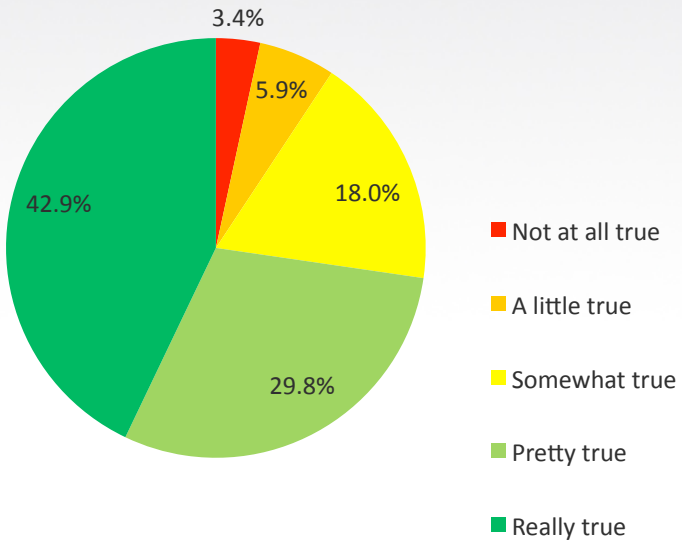


	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12	Item 13	Item 14
Your Mean	3.30	3.00	4.00	4.00	4.20	4.20	3.80	4.40	4.40	4.90	4.70	4.80	5.10	4.80
All Grantee Mean	3.67	2.40	4.19	4.23	4.37	4.47	4.00	4.40	4.29	4.88	4.90	5.30	5.20	5.40

I have enhanced my sport skills at LiFE Sports

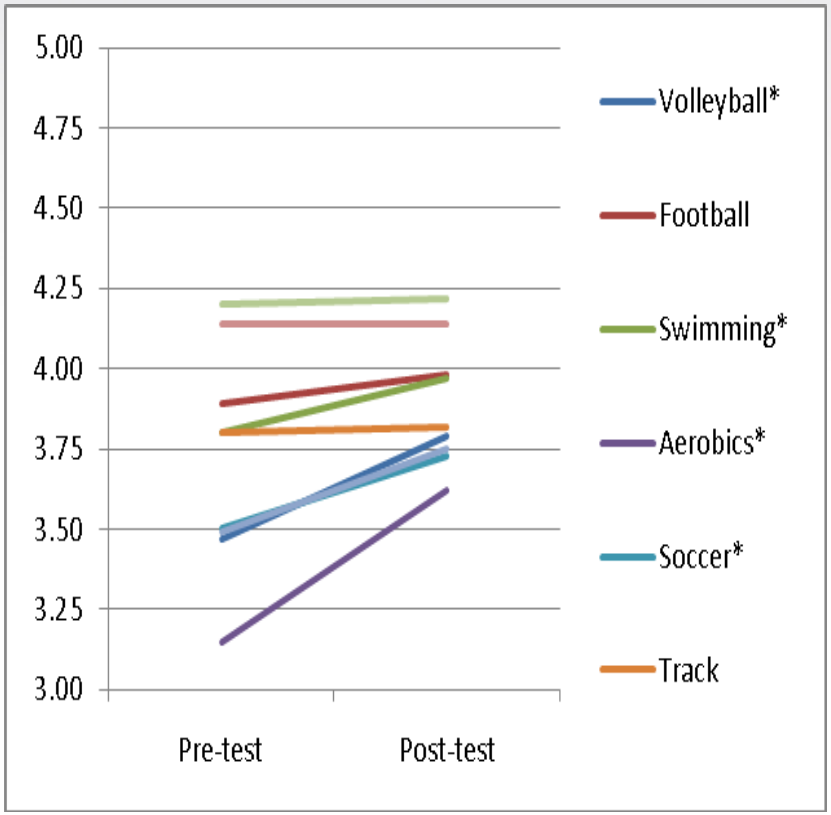


I learned to get along with others at LiFE Sports

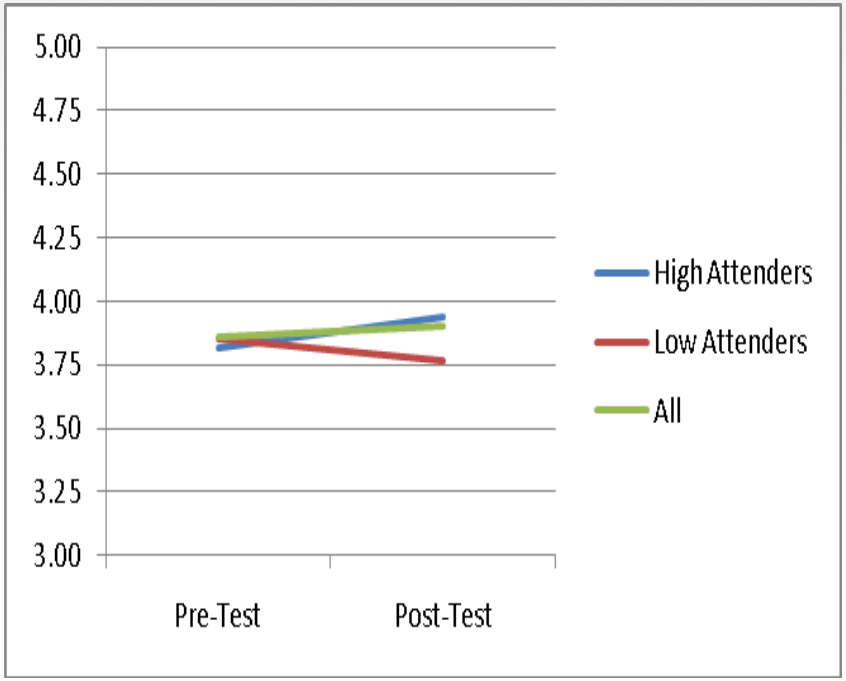


Perceptions Pre-to-Post LiFE Sports Participation

Athletic Competence



Social Competence



Youth Risk Behavior Survey and Other Tools

- During your life, how many times have you taken a prescription drug without a doctor's prescription?
- During the past 30 days, how many times have you taken a prescription drug without a doctor's prescription?

  - A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to 39 times
  - F. 40 or more times

http://lib.adai.uw.edu/instruments/

Think About…

- Your goals and objectives (outcomes)
- Your activities and their linkage to desired outcomes
- Both process and outcomes evaluation methods
- Determine your data sources (i.e. where you are going to get your data)
- Who will collect the data? When?
- How will the data be analyzed and used it to inform improvements? Assist with organizational and funder goals?

For more information, please contact:

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Community and Youth Collaborative Institute:
www.csw.osu.edu/cayci

LiFE Sports:
www.osulifesports.org